

A
BRIEF ACCOUNT
OF THE
DISCOVERY OF ANTHRACITE COAL
ON THE
LEHIGH.

BY THOMAS C. JAMES, M.D.

Read at a Meeting of the Council, on the 19th of April, 1826.

AN ACCOUNT

OF THE

DISCOVERY OF ANTHRACITE COAL.

As the brief Account of the Discovery of the Anthracite Coal on the summit of the Mauch Chunk Mountain seemed to engage the attention of some of the members of the Historical Society, on one of the evenings of the

The author of this sketch was born in Philadelphia, on the 31st of August, 1766, and received his degree of Doctor of Medicine from the University of Pennsylvania, in 1787. In the winter of 1790, he went to Edinburgh, where he further pursued his studies, under Dr. Hunter; and, after visiting England and Ireland, returned to Philadelphia in the year 1793, about the period of the breaking out of the yellow fever; during all its ravages many were the recipients of his kindness and skill.

In 1811, he was elected to the Chair of Obstetrics, in the University of Pennsylvania, which he resigned in 1834.

Dr. James had strong literary and poetic tastes, and for some years was the Editor of a Medical Journal. Highly regarded by his medical associates for his professional learning and skill, and by all for his many estimable qualities as a citizen and a man, he died on the 5th of January, 1835, in the sixty-ninth year of his age.

We are indebted for these facts to a Biographical Sketch by the late Mr. Tyson. (Society's Memoirs, Vol. III., p. 105.)—EDITOR.

meeting of their Council, and as it has been thought worthy of preservation, the writer of the following little narrative feels no objection to commit it, notwithstanding its imperfections, to paper, although the circumstances detailed occurred at such a distance of time as must plead an excuse for imperfect recollection.

It was some time in the autumn of 1804 that the writer and a friend* started on an excursion to visit some small tracts of land that were joint property on the river Lehigh, in Northampton County. We went by the way of Allentown, and, after having crossed the Blue Mountain, found ourselves in the evening unexpectedly bewildered in a secluded part of the Mahoning Valley, at a distance, as we feared, from any habitation; as the road became more narrow, and showed fewer marks of having been used, winding among scrubby timber and underwood. Being pretty well convinced that we had missed our way, but, as is usual with those who are wrong, unwilling to retrace our steps, we nevertheless checked our horses about sunsetting, to consider what might be the most eligible course. At this precise period, we happily saw emerging from the wood, no airy sprite, but, what was much more to our purpose, a good substantial German-looking woman, leading a cow laden with a bag of meal by a rope halter. Considering this as a probable indication of being in the neighborhood of a mill, we ventured to address our inquiries to the dame, who, in a language curiously compounded of what might be called

* Anthony Morris, Esq.

high and low Dutch, with a spice of English, made us ultimately comprehend that we were not much above a mile distant from Philip Ginter's mill, and, as there was but one road before us, we could not readily miss our way. We accordingly proceeded, and soon reached the desired spot, where we met with a hospitable reception, but received the uncomfortable intelligence that we were considerably out of our intended course, and should be obliged to traverse a mountainous district, seldom trodden by the traveller's foot, to reach our destined port on the Lehigh, then known by the name of the *Landing*, but since dignified with the more *classical* appellation of Lausanne. We were kindly furnished by our host with lodgings in the mill, which was kept going all night; and as the structure was not of the most firm and compact character, we might almost literally be said to have been rocked to sleep. However, after having been refreshed with a night's rest, such as it was, and taking breakfast with our hospitable landlord, we started on the journey of the day, preceded by *Philip*, with his axe on his shoulder, an implement necessary to remove the obstructing saplings that might impede the passage of our horses, if not of ourselves; and these we were under the necessity of dismounting and leading through the bushes and briars of the grown-up pathway, if pathway had ever really existed.

In the course of our pilgrimage we reached the summit of the Mauch-Chunk Mountain, the present site of the mine or rather quarry of Anthracite Coal; at that time there were only to be seen three or four small pits, which

had much the appearance of the commencement of rude wells, into one of which our guide descended with great ease, and threw up some pieces of coal for our examination; after which, whilst we lingered on the spot, contemplating the wildness of the scene, honest Philip amused us with the following narrative of the original discovery of this most valuable of minerals, now promising, from its general diffusion, so much of wealth and comfort to a great portion of Pennsylvania.

He said, when he first took up his residence in that district of country, he built for himself a rough cabin in the forest, and supported his family by the proceeds of his rifle, being literally a hunter of the backwoods. The game he shot, including bear and deer, he carried to the nearest store, and exchanged for the other necessities of life. But, at the particular time to which he then alluded, he was without a supply of food for his family, and after being out all day with his gun in quest of it, he was returning towards evening over the *Mauch Chunk* Mountain, entirely unsuccessful and dispirited, having shot nothing; a drizzling rain beginning to fall, and the dusky night approaching, he bent his course homeward, considering himself as one of the most *forsaken* of human beings. As he trod slowly over the ground, his foot stumbled against something which, by the stroke, was driven before him; observing it to be *black*—to distinguish which there was just light enough remaining—he took it up, and as he had often listened to the traditions of the country of the existence of coal in the vicinity, it occurred to him that this perhaps might be a portion of that “stone-

coal" of which he had heard. He accordingly carefully took it with him to his cabin, and the next day carried it to Colonel Jacob Weiss, residing at what was then known by the name of Fort Allen. The colonel, who was alive to the subject, brought the specimen immediately with him to Philadelphia, and submitted it to the inspection of John Nicholson and Michael Hillegas, Esqs., and Charles Cist, an intelligent printer, who ascertained its nature and qualifications, and authorized the colonel to satisfy Ginter for his discovery, upon his pointing out the precise spot where he found the coal. This was done by acceding to Ginter's proposal of getting through the forms of the patent-office the title for a small tract of land which he supposed had never been taken up, comprising a mill-seat, on which he afterwards built the mill which afforded us the lodging of the preceding night, and which he afterwards was unhappily deprived of by the claim of a prior survey.

Hillegas, Cist, Weiss, and some others, immediately after (about the beginning of the year 1792) formed themselves into what was called the "Lehigh Coal Mine Company," but without a charter of incorporation, and took up about eight or ten thousand acres of, till then, unlocated land, including the Mauch Chunk Mountain, but probably never worked the mine.

It remained in this neglected state, being only used by the blacksmiths and people in the immediate vicinity, until somewhere about the year 1806, when William Turnbull, Esq., had an ark constructed at Lausanne, which brought down two or three hundred bushels. This

was sold to the manager of the water-works for the use of the Centre-Square steam-engine. It was there tried as an experiment, but ultimately rejected as unmanageable, and its character for the time being *blasted*, the further attempts at introducing it to public notice, in this way, seemed suspended.

During the last war, J. Cist (the son of the printer), Charles Miner, and J. A. Chapman, tempted by the high price of bituminous coal, made an attempt to work the mine, and probably would have succeeded, had not the peace reduced the price of the article too low for competition.

The operations and success of the present Lehigh Coal and Navigation Company must be well known to the Society; the writer will therefore close this communication by stating, that he commenced burning the Anthracite Coal in the winter of 1804, and has continued its use ever since, believing, from his own experience of its utility, that it would ultimately become the general fuel of this as well as some other cities.

T. C. J.

Philada., April 13th, 1826.

The following shows the quantity of coal sent from Mauch-Chunk to Philadelphia by water in the years specified, viz.:—

In 1820	.	.	.	.	.	16,000 bushels.
1821	.	.	.	.	.	32,000 do
1822	.	.	.	.	.	80,000 do
1823	.	.	.	.	.	230,000 do
1824	.	.	.	.	.	500,000 do
1825	.	.	.	.	.	516,236 do

In half the season, up to August 10th, 1826, there descended to Philadelphia 20,260 tons, equal to 567,280 bushels, which is a greater amount by 51,044 bushels than descended in the *whole* of the year 1825.

During the last year, 750,000 bushels have been actually sold by the company, as the writer is informed by the secretary of the company.

NOTE.—The subjoined table shows the tonnage of the Lehigh coal region from 1820 to 1863.

YEAR.	TONS.	YEAR.	TONS.
1820	365	1842	272,546
1821	1,073	1843	267,793
1822	2,240	1844	377,002
1823	5,823	1845	429,453
1824	9,541	1846	517,116
1825	28,393	1847	633,507
1826	31,280	1848	670,321
1827	32,074	1849	781,656
1828	30,232	1850	690,456
1829	25,110	1851	964,224
1830	41,750	1852	1,072,136
1831	40,966	1853	1,054,309
1832	70,000	1854	1,207,186
1833	123,000	1855	1,275,050
1834	106,244	1856	1,186,230
1835	131,250	1857	900,314
1836	148,211	1858	909,000
1837	223,902	1859	1,050,659
1838	213,615	1860	1,009,032
1839	221,025	1861	994,705
1840	225,318	1862	396,227
1841	143,037	1863	699,558

The total tonnage from the three anthracite coal fields amounted in 1863 to 9,420,135 tons. (See *Pottsville Miners Journal*, of January 23, 1864.) The following additional particulars concerning the development of the coal region of the Lehigh, and which are derived from

a Memoir of Josiah White by Mr. S. W. Roberts, may be found not uninteresting.

"Experiments with anthracite coal had been made at the wire-mill at the Falls, owned by Josiah White, Joseph Gillingham, and Erskine Hazard; and when the Schuylkill Navigation Company was chartered, in 1815, Josiah White took a lively interest in the enterprise; but not being able to agree in opinion with the gentlemen who had the control of the company, he told them that he would have no more to do with it, and would go and set up a rival improvement upon the Lehigh. They ridiculed the idea, and thought that he was much more likely to ruin himself than to build up a rival to them.

"Very liberal legislation was obtained, giving the control of the Lehigh River to Josiah White, Erskine Hazard, and G. F. A. Hauto, with the powers of an internal improvement company. The first and second of the partners had long been associates and intimate friends. * * * A large body of wild lands, containing an immense amount of anthracite coal, having been purchased in the neighborhood of Mauch Chunk, operations were commenced in 1818 to improve the river and to start the Lehigh coal trade. It was found to be a much more serious and expensive undertaking than had been anticipated. The Lehigh is a large stream, having a great deal of fall, and a very rocky bottom. The channels were crooked and intricate, and the fall was so great that when the river was low there was no navigation whatever. Messrs. White and Hazard were their own engineers. They waded in the stream; they sounded the channels; they took the levels of the rapids; they directed the blasting of the rocks, the building of the wing dams, and the removal of the bars. But something more was needed to make a good descending navigation, and this was effected by means of a system of flushing, called "artificial freshets." * * * The coal was then brought down the rivers Lehigh and Delaware to Philadelphia, in arks roughly built of white pine plank and boards, which lumber was sold after the coal was unloaded. These arks were nearly square, and several of them were fastened together in a line by means of iron hinges, so as to make a long flexible boat, which would float safely in rough water, and was steered by a long oar at each end.

"By means of this descending navigation the Lehigh coal trade was started in 1820, two years in advance of that on the Schuylkill navigation; and the coal continued to be carried in arks until after the Lehigh Canal was constructed and ready for use. The practical limit of the capacity of the descending navigation was found to be

about 30,000 tons per annum, which was then considered to be a large trade. The consumption of lumber in building coal arks was very large, and numerous saw-mills were built to furnish it. The coal was hauled in wagons from the Summit Mines, then worked as an open quarry, to Mauch Chunk, nearly nine miles, on a turnpike road, built with a descending grade. The anthracite coal trade of Pennsylvania, thus started by Josiah White and his partner, Erskine Hazard, in 1820, when 365 tons were sent to market, has grown to the immense aggregate of 7,700,000 tons in 1859, and it has conferred incalculable benefits upon the commonwealth.

"As a large capital was required for extended operations, a charter was obtained in 1822 for the Lehigh Coal and Navigation Company, and the rights of Messrs. White and Hazard were transferred by them to the new corporation for a large amount of its stock, they continuing to be its acting managers and engineers. In the spring of 1827, they laid a railroad, nine miles long, from the mines to Mauch Chunk, mostly on the bed of the old turnpike; which was the first railroad in Pennsylvania, and the first in the United States, except a much shorter road from a granite quarry in Massachusetts. On the Mauch Chunk Railroad the loaded coal cars ran down to the river by gravity, and were hauled back when empty by mules. This pioneer railroad was considered to be a great curiosity, and attracted crowds of visitors to see it.

"In 1827, after the railroad was made, the construction of the Lehigh Canal and ascending navigation was vigorously undertaken, under the supervision of Canvass White, who was a scientific civil engineer, and had been in charge of the construction of the eastern division of the Erie Canal of New York. Josiah White had much to do with the planning of the new works; and he especially insisted on the locks being large, the canals wide and deep, and the bed of the river being used in many places for the boat channel. Thus the Lehigh Company was saved the enormous cost of a general enlargement of its works, which has had to be encountered by so many other companies to meet the competition of rival lines. The canal from Mauch Chunk to Easton, forty-six miles, was opened in 1829."

In a paper written by Mr. Erskine Hazard, entitled a History of the Introduction of Anthracite Coal, vol. ii., p. 155, of *Memoirs of Society*, some interesting facts are stated. — EDITOR.